High Resolution FTIR Spectrum of Chlorofluoroethyne, FCCCl, below 1000 cm^{-1}. Analysis of the ν_3, ν_4, ν_5, $2\nu_4$, $\nu_4 + \nu_5$ and $2\nu_5$ Bands, and *ab initio* Calculations

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High resolution infrared spectra of FCCCl have been measured and analyzed by polynomial methods. In the region below 350 cm^{-1}, the analysis is straightforward and yields parameters for the $v_4 = 1$ and $v_5 = 1$ states. Between 350 and 800 cm^{-1} there are strong anharmonic interactions in the $2\nu_5/\nu_4 + \nu_5/\nu_3/2\nu_4$ tetrad which have been unravelled with the use of a model that employs *ab initio* interaction constants. Observed and theoretically predicted wavenumbers are in excellent agreement for all bands studied.

Key words: Infrared Spectrum; High Resolution; Alkyne; Fermi Resonance; *ab initio* Calculations.

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